

# LS110A-NIR-(C)

## Acousto-Optic Modulator



0417

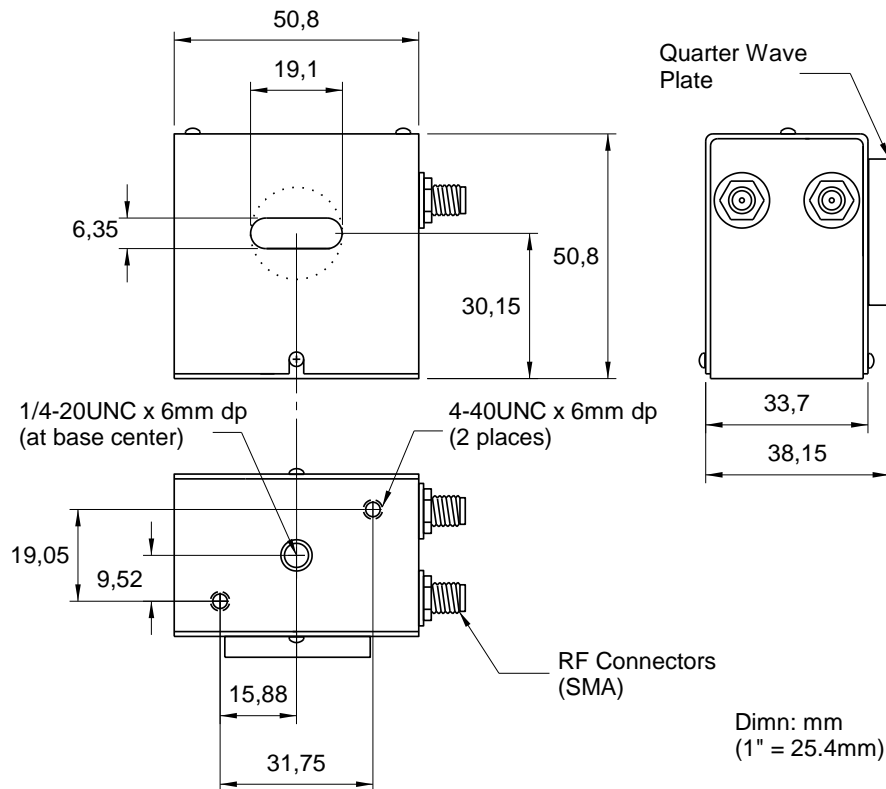
### APPLICATIONS

- Solid State Scanning of Visible and Infrared Lasers

### FEATURES

- High Resolution
- High Scan Speed
- No Moving Parts
- High Uniformity and Throughput across Scan

### OUTLINE DRAWING



**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

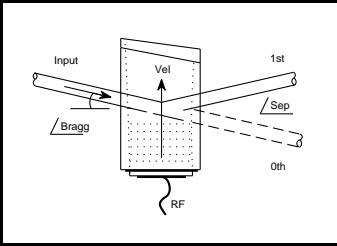
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**Quality Assured.**

**In-house: Crystal Growth,  
Optical Polishing,  
A/R coating, Vacuum Bonding**



# LS110A-NIR-(C)

## Acousto-Optic Modulator



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### SPECIFICATIONS

	<u>LS110-830</u>	<u>LS110-1064</u>	<u>LS110(HF)-1.06</u>	<u>LS110-1.35</u>	<u>LS110-1.5</u>
Wavelength **:	830nm	1064nm	1064nm	1.35um	1.55um
Centre Freq. (Nom)	50MHz	50MHz	70MHz	50MHz	50MHz
Bandwidth $\Delta f$ :	25MHz	25MHz	40MHz	25MHz	25MHz
Scan Angle/Axis:	1.9°	2.5°	3.95°	3.1°	3.6°
fc Separation Angle:	3.9°	4.9°	6.91°	6.2°	7.2°
Aperture	9.3mm / 14x4mm	9.3mm / 14x4mm	6.2mm / 14x4mm	14x4mm	14x4mm
Max Resolution:					
Circular aperture	375	375	400		
14x4mm aperture	550*	550*	880*	550*	550*
Throughput Efficiency	> 40%	> 40%	> 40%	> 30%	> 30%

#### Aperture:

LS110-xxxx-C  
LS110-xxxx

Circular (6.2mm or 9.3mm diameter)  
Elliptical 14mm W x 4mm H

#### Access Time (t):

(-C) 6.2mm circular aperture      10  $\mu$ s  
(-C) 9.3mm circular aperture      15  $\mu$ s  
14mm(h)x4mm(w) aperture      22.7  $\mu$ s

Input Laser Polarization:      Linear. (Quarter wave plate included)

Output Laser Polarization:      Circular (Nominal)

Interaction Material:      TeO<sub>2</sub> (Slow Shear)

Acoustic Velocity:      0.617mm/ $\mu$ s

RF Input Impedance:      50 $\Omega$  Nominal

### RF DRIVE ELECTRONIC OPTIONS

VCO driver/amplifier:      D32x-BS / D33x-BS series  
Fast tuning Synthesizer:      iMS4-L (or -P) synthesizer plus iMPA2-1W amplifier  
Amplifier only:      DA134-p-xxx (with Integral Phase shifting)

\* Theoretical Rayleigh resolution with uniformly illuminated aperture (14mm).

\*\* Please call for other operating wavelengths.

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